USER MANUAL for RS 232 TO RS 485 / 422 SMARTCONVERTER –VE04U

INTRODUCTION :

SMARTCONVERTER –VE04U converts RS 232 signal to RS 485 / RS 422 Isolated differential level signal (& vice versa). It works on 230V / 110V AC. 24V & 48V DC Power supply options are available.

Auto Baud Rate (ABRT) facility is available as default. Select the position of the DIP SW3 to ON to enable this feature. Try the ABRT option if your Query / Responses are fast.
Hardware Flow Control, through RTS positive signal, is available on DIP SW2.

Ensure proper Power supply connections. Recheck the connections before Power On.
Ensure proper Data cable connections as per the table below.
Ensure proper DIP settings as per the DIP Switch Setting table
Use 120Ω termination resistances wherever necessary.

RS 232 SIDE DETAILS :
DIRECTION OF SIGNAL :-

PIN NO	DIRECTION
2	OUTGOING FROM SC04 U
3	INCOMING FOR SC04 U
4 & 6	SHORTED
7,8	SHORTED
5	GND

RECOMMENDED CABLE CONNECTION

PC SIDE 9 PIN D TYPE (Male)	SIGNAL	VE04-U SIDE 9 PIN D TYPE (Female)
1	DCD	1
2	RxD	2
3	TxD	3
4	DTR	4
5	GND	5
6	DSR	6
7	RTS	7
8	CTS	8
9	RI	9

RS 485 / RS 422 SIDE DETAILS

For RS485, 4 wire

SIGNAL of VE04U	DIRECTION	Will Connect to
TX +	OUTPUT FROM VE04 U	RX+ of your device
TX --	OUTPUT FROM VE04 U	RX- of your device
RX +	INPUT TO VE04 U	TX + of your device
RX --	INPUT TO VE04 U	TX – of your device

For RS 485, 2 wire

SIGNAL of VE04U	DIRECTION	Will Connect to
TX +	Bi-directional Signal	TX + / D+ of your device.
TX --	Bi-directional Signal	TX -- / D-of your device.

DIP SWITCH SETTING DETAILS:

OPERATION	SW1	SW2	SW3
RS 422	OFF	OFF	OFF
RS 485. Auto Baud Rate Enabled	OFF	OFF	ON
RS 485. RTS Controlled	OFF	ON	OFF
RS 485. Auto BaudRate Disabled	ON	OFF	OFF

RS 485 MODE	SW4	SW5
RS 485-2 WIRE	ON	OFF
RS 485-4 WIRE	OFF	ON

Selection of DIP Switch no. 6, 7, 8 is valid only when SW1 is ON.

BAUD RATE SETTING	SW6	SW7	SW8
19.2 TO 115200 Kbps	ON	OFF	OFF
9.6 Kbps	OFF	ON	ON
4.8 Kbps	OFF	ON	OFF
Below 2.4 kbps	OFF	OFF	ON

DATA FLOW --At Power ON, both TX & RX LED's are OFF. When data is received from RS 232 side, transmission is enabled and TX LED will blink. When data is received from RS 422 side RX LED will blink.

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